

--SUMMARY OF THE INVENTION--.

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BRIEF DESCRIPTION OF THE DRAWING--

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Fig. 1A illustrates the nucleotide and amino acid sequences of the synthetic gene (Bac 19) and the "native gene" (PF19) of *P. falciparum* described by Chang et al.

Fig. 1B illustrates the nucleotide and amino acid sequences of the synthetic gene (Bac 19) and the "native gene" (PF19) of the Uganda Palo Alto isolate of *P. falciparum*.

Fig 1C illustrates the PfMSP1_{P19}A recombinant protein sequence before cutting out the signal.

Fig. 1D illustrates the PfMSP1_{P19}A recombinant protein after cutting out the signal sequence.

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Fig. 2A is an immunoblot using SDS-PAGE of the soluble recombinant PfMSP1_{P19}A antigen purified by immunoaffinity in the presence (reduced) or absence (non-reduced) of β -mercaptoethanol.

Fig. 2B is an immunoblot with human antiserum of recombinant purified MSP-1 P19 from *P. vivax* and *P. cynomolgi* under non-reduced (NR), reduced only in the charging medium (R) and irreversibly reduced (IR) conditions.

Fig. 3A is an immunoblot of the soluble PvMSP1_{P42} recombinant antigen in the presence of protein fractions derived from merzoites of *P. falciparum* and separately isoelectric focusing in the presence (reduced) or absence (nonreduced) of β -mercaptoethanol.

Fig. 3B is a graph illustrating the results of an ELISA inhibition technique of *P. vivax* MSP-1 P42 and P19 antigens by the antiserum of individuals with an acquired immunity to *P. vivax*.

Fig. 4 recites nucleotide sequences. The underlined oligonucleotides originate from *P. vivax* and are used as primers in a PCR reaction. The lower portion of Fig.4 illustrates the percent identity between two isolates of *P. vivax* and *P. cynomolgi*.

Fig. 5 shows curves illustrating the variation in the measured parasitemia as the number of parasited red blood cells per microliter of blood as the function of time passed after infection. Curve A corresponds to the average values observed in three vaccinated monkeys and curve B corresponds to the average values in five controls.

Fig. 6A is a graph illustrating the parasitemia observed in non-vaccinated control animals as a function of time after injection.

Fig. 6BA is a graph illustrating the parasitemia observed in control animals which contained a saline solution also contain Freund's adjuvant as a function of time after injection.

Fig. 6C is a superposition of Figures 6A and 6B.

Fig. 6D is a graph illustrating parasitemia at the end of vaccination with p42 as a function of time.

Fig. 6E is a graph illustrating parasitemia in animals vaccinated with p19 alone as a function of time.

Fig. 6F is a graph illustrating parasitemia in animals with a mixture of P42 and P19 as a function of time.

Fig. 6G is the data obtained to produce the graphs in Figs. 6A to 6F.

Fig. 7A is an immunoblot illustrating the in vivo response of monkeys to injections of p19 with Freund's adjuvant (1), with alum (2) and in the form of liposomes (3).

Fig. 7B is an immunoblot illustrating the in vivo response of a squirrel monkey after three injections with p19 with Freund's adjuvant, with alum and in the form of liposomes.

Fig. 8A is a graph illustrating the percent parasitemia versus days post infection of six monkeys, which were immunized with recombinant MSP-1 (p19) six months earlier.

Fig. 8B is a graph illustrating the percent parasitemia versus days post infection of six monkeys that were immunized with normal saline and an adjuvant.

Fig. 8C is a graph illustrating the percent parasitemia versus days post infection of monkeys that were used as controls.

Fig. 8D is the data obtained to produce the graphs in Figs 8A to 8C.

Fig. 9A is a graph illustrating the percent parasitemia versus days post infection of 2 macaques immunized with recombinant p19 and alum.

Fig. 9B is a graph illustrating the percent parasitemia versus days post infection of 2 macaques immunized with recombinant p19 and alum.

Fig. 9C is a graph illustrating the percent parasitemia versus days post infection of a macaque immunized with p19.

Fig. 9D is a graph illustrating the percent parasitemia versus days post infection of 3 control macaques immunized with physiological water and alum.

Fig. 9E is the data obtained to generate the graphs in Figs 9A to 9D.

Fig. 10A is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with MSP-1 p19 and alum.

Fig. 10B is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with MSP-1 p19 and Freund's.

Fig. 10C is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with MSP-1 p19 with liposomes.

Fig. 10D is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with alum as the control.

Fig. 10E is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with Freund's as the control.

Fig. 10F is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with liposomes as the control.

Fig. 10G is a graph illustrating the percent parasitemia versus days post infection in a squirrel monkey immunized with physiological water as the control.

Fig. 11A is a drawing of the backbone of MSP1₁₉ from *P. cynomolgi* showing disulfide bridges in bold line.

Fig. 11B is a drawing of the backbone of MSP1₁₉ showing positions of sequence differences between *P. cynomolgi* and *P. vivax*.

Fig. 11C is a drawing of the backbone of homology-modeled MSP1₁₉ of *P. falciparum* showing positions of sequence differences with *P. cynomolgi*.

Fig. 12A is a NOESY spectrum of *P. cynomolgi* MSP1₁₉.

Fig. 12B is a NOESY spectrum of *P. cynomolgi* MSP1₁₉.

Fig. 12C is a TOCSY spectrum of *P. cynomolgi* MSP1₁₉.

Fig. 12.1A is a NOESY spectrum of *P. vivax* MSP1₁₉.

Fig. 12.1B is a NOESY spectrum of *P. vivax* MSP1₁₉.

Fig. 12.1C is a TOCSY spectrum of *P. vivax* MSP1₁₉.

Fig. 12.2A is a NOESY spectrum of *P. falciparum* MSP1₁₉.

Fig. 12.2B is a NOESY spectrum of *P. falciparum* MSP1₁₉.

Fig. 12.2C is a TOCSY spectrum of *P. falciparum* MSP1₁₉.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please add the following Abstract as the last page of the present specification: